

PHENIX WEEKLY PLANNING



4/25/2013
Don Lynch

This Week

- Run 13 Continues: run support maintenance
- No scheduled access this week: next maintenance day: 5/1
- Ethane Tube Trailer Upgrade Continues:
Procedure Done, Plumbing fittings Acquired
- mRPC Test Lab (Formerly RPC Factory): Blue Sheets done, UPS needs repair, Procedures done ready for approval signatures
- Continue VTX strip pixel stave re-design
- Continue sPHENIX support
 - HCal prototype design being firmed up
 - EMCal prototype design continuing
- Continue MPC-Ex design
- Future IR evolution modeling

Next Week

- Run 13 Continues: run support, general maintenance
- Next Scheduled Maintenance Day: Wednesday, May 1
- mRPC Test Lab (Formerly RPC Factory) Startup and Walkthru
- Continue VTX strip pixel stave re-design
- Continue sPHENIX support
- Continue MPC-Ex design
- Future IR evolution modeling



Ethane Trailer Project: In progress



4/25/2013

New Gas Analyzer Project (RPC recirculation and more)



mRPC Test Lab Project

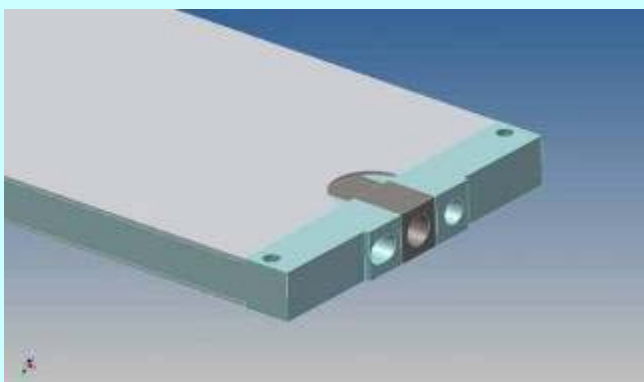
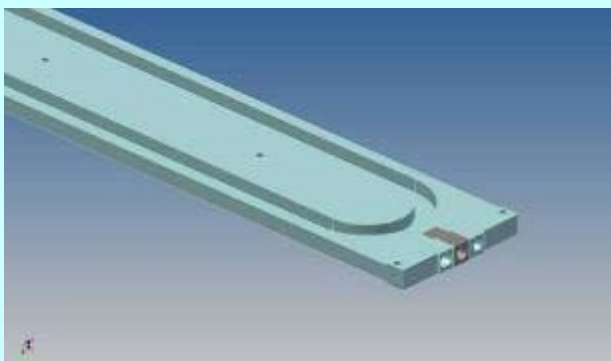
TECHNICAL SUPPORT - 2013



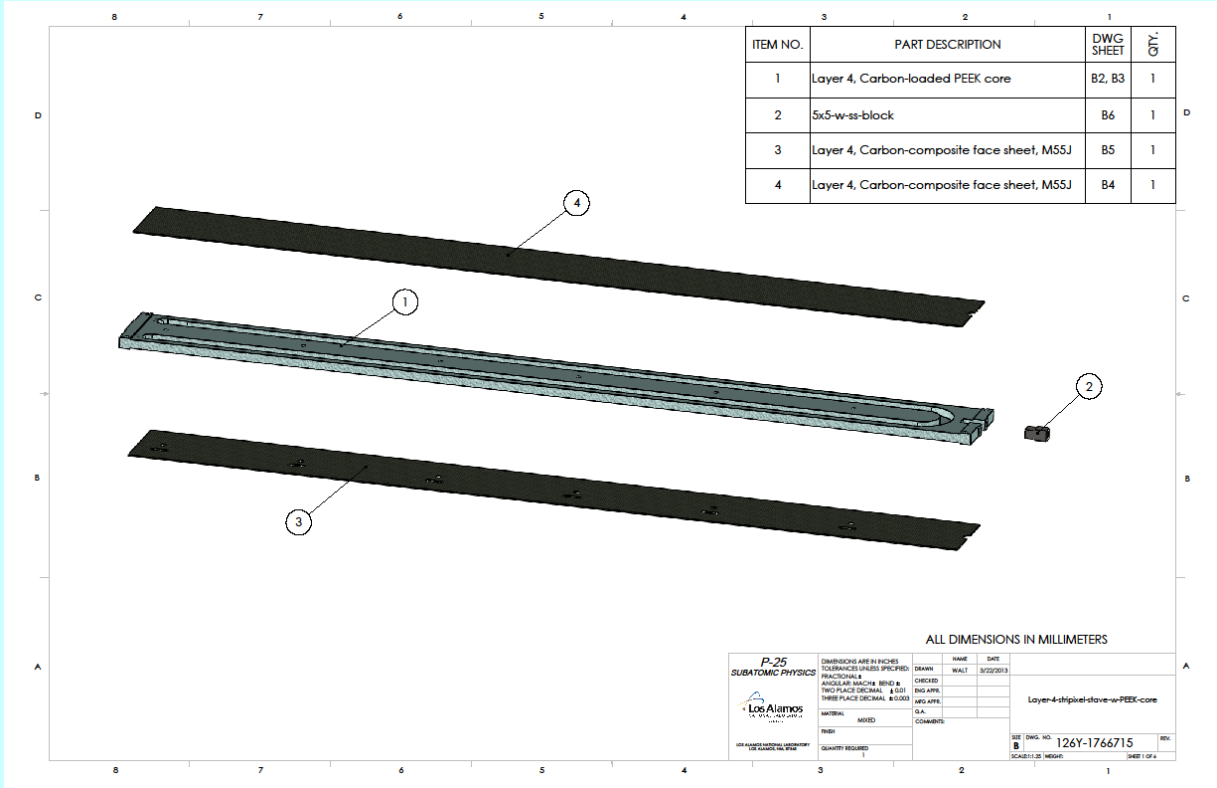
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VTX Repair Project Progress

TECHNICAL SUPPORT 2013



Prototypes of updated stave design are in progress expect to be fabricated by end of April



4/25/2013

2013 VTX/FVTX Repair/Upgrade/Restoration

TECHNICAL
SUPPORT
2013

Remove VTX east strppxls	Done
Evaluate leaks	Done
Design Improved Strppxl stave to improve reliability	Done
"harvest" sensors from old staves (east)	Done?
order prototypes	Done
receive prototype parts and fixtures from LBNL and LANL	In progress
inspect prototype parts (Rachid flatness measurements)	In progress
assign workspace	In progress
assemble 1 each barrel 3/4 stave modifying LBNL fixtures and procedures as necessary	5/10
1st article performance testing (pressure, thermal cycling, thermal performance) (make changes if necessary)	5/13
(release) order for production parts	5/13
set up factory for mass production	6/7

TECHNICAL
SUPPORT
2013

receive production parts	6/10
end run 13	6/17
remove VTX/FVTX east from IR to CHEM Lab	6/28
disassemble VTX/FVTX east at Chem lab and route segments to appropriate work/storage spaces	7/3
extract FVTX and transport FVTX east to PHYSICS	7/8
VTX east pxl repairs	7/8-?
FVTX east repairs	7/8-?
remove VTX/FVTX west from IR to CHEM Lab	7/12
disassemble VTX/FVTX west at Chem lab and route segments to appropriate work/storage spaces	7/16
extract FVTX and transport FVTX west to PHYSICS	7/19
extract pixel layers from west (1 & 2) put on frames for pixel repairs	
VTX west pxl repairs	7/22-??
FVTX west repairs	7/22-??

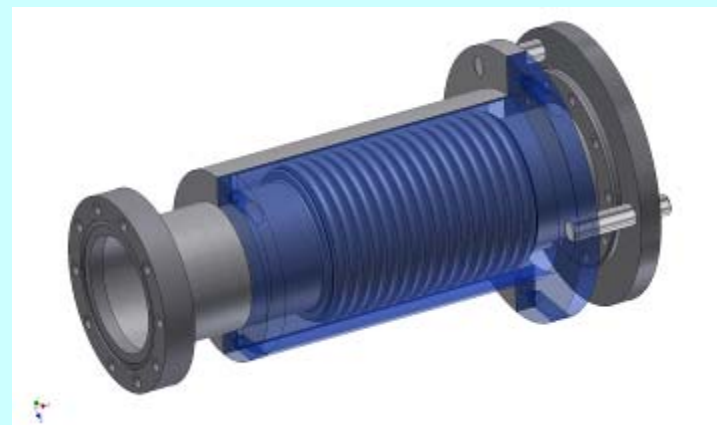
2013 VTX/FVTX Repair/Upgrade/Restoration (cont'd)

TECHNICAL
SUPPORT
2013

"harvest" strippixel sensors from old staves (west)	8/15
pretest VTX strippixel components for assembly	
VTX strippixel assembly	
subsystem testing	10/3
full VTX/FVTX integration	10/10
full system testing	10/15
Survey	10/17
transport to 1008	10/24
install in IR	10/31
install services	11/15
Test	11/20
Commission	12/31
Start Run 14	1/1/2014



Existing vacuum bellows anti-squirm
In MPC S Cavity



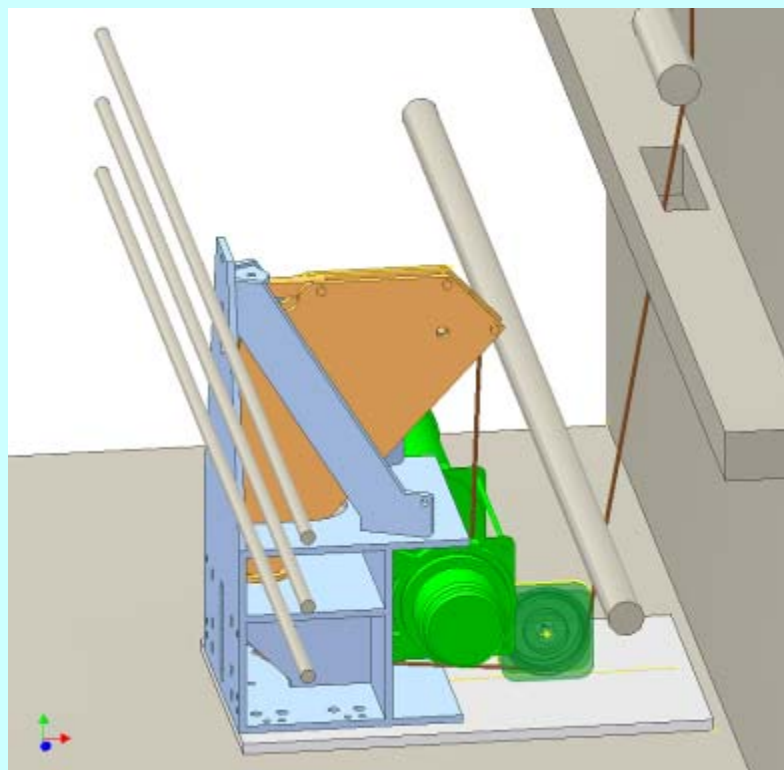
Proposed vacuum bellows anti-squirm
In MPC S Cavity to accommodate MPC-Ex



1st Tungsten Plate received: Inspection OK

Window Washer Winch Upgrade

TECHNICAL SUPPORT 2013



Attention: Donald Lynch

Company: Brookhaven National Lab

Phone: 631-344-2253

Based on the information provided to us for an AC hoist to be used for lifting, we are pleased to propose the following:

Line	Qty.	Product:	Net Each	Extended
1	1	Columbia HF2100-2A17-L-03 AC Electric Hoist <ul style="list-style-type: none"> 2.0 HP TEFC UL-listed brakemotor 230/3/60 input power Automatic, load-suspending braking system Permanently lubricated, high-efficiency planetary gear reduction Argent gray enamel paint finish Includes single speed low voltage controls <ul style="list-style-type: none"> Reversing motor starter in a NEMA 4X fiberglass enclosure UL-listed Includes NEMA 4X hand-held pendant control with UP/DOWN momentary contacts and up to 15' lead Does not include wire rope	\$5,022.00	\$5,022.00

Options:

Line	Qty.	Product:	Net Each	Extended
2	1	AutoAdvance Line Spooler <ul style="list-style-type: none"> Designed and built for Columbia HF2100-2A17-L-03 Incoming line from front of spooler Fabricated steel frame Sheaves are steel construction, grooved for 3/8" line Ensures proper line spooling regardless of fleet angle Rope tension must be maintained for proper operation 	\$3,298.00	\$3,298.00

Line	Qty.	Product:	Net Each	Extended
3	1	VLS-6 Vertical Lead Sheave <ul style="list-style-type: none"> 6,000 lbs load limit Can be bolted down or welded for installation Fabricated steel construction Offset design allows for simple installation at any angle Bronze bushed steel sheave grooved for 3/8" wire rope 	\$458.00	\$458.00

Line	Qty.	Product:	Net Each	Extended
4	1	Wire Rope <ul style="list-style-type: none"> 200' of 3/8" stainless steel wire rope (7x19 construction) with latching hook Supplied loose 	\$684.00	\$684.00

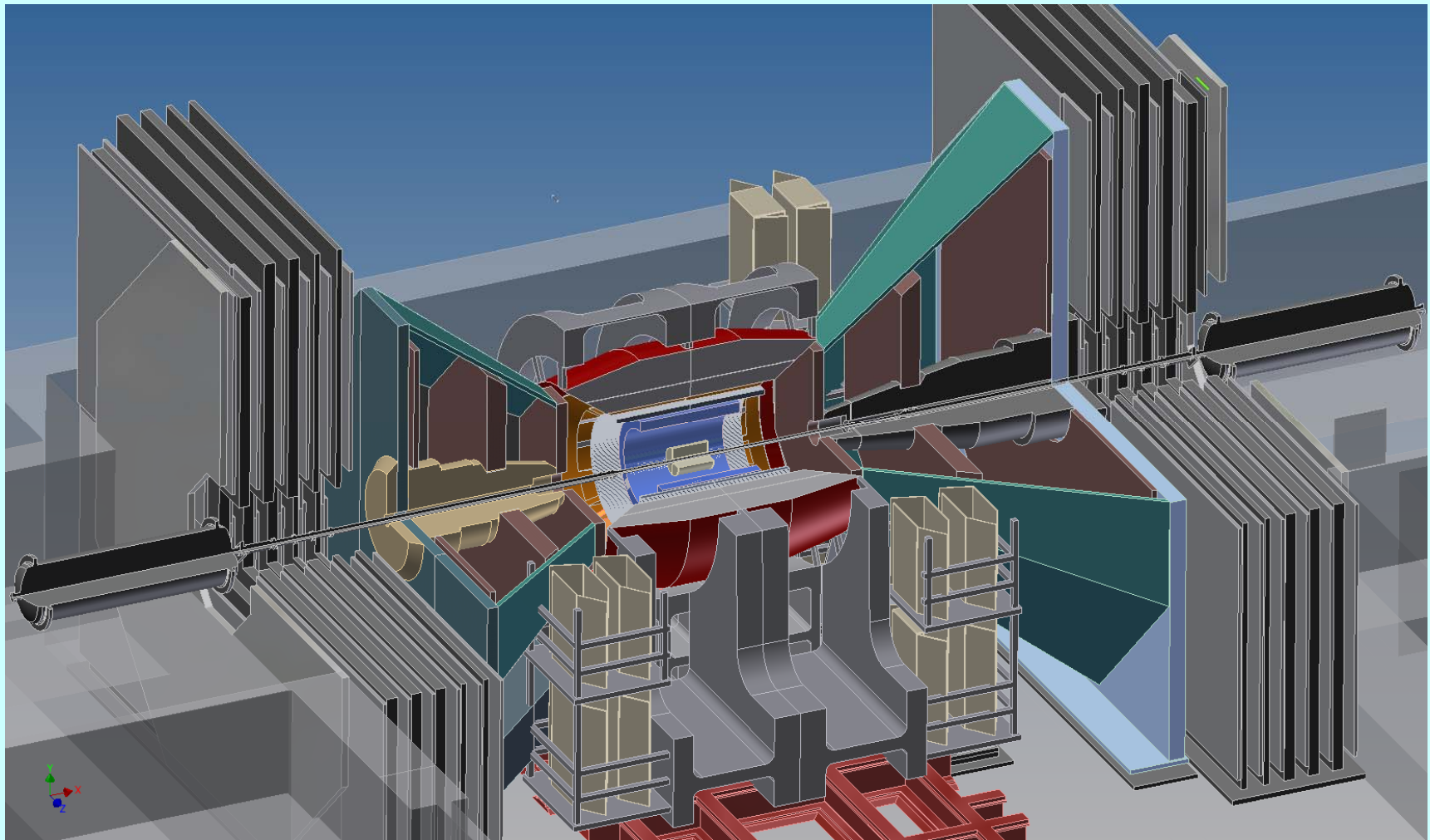
Total Estimated Material Cost: \$9462

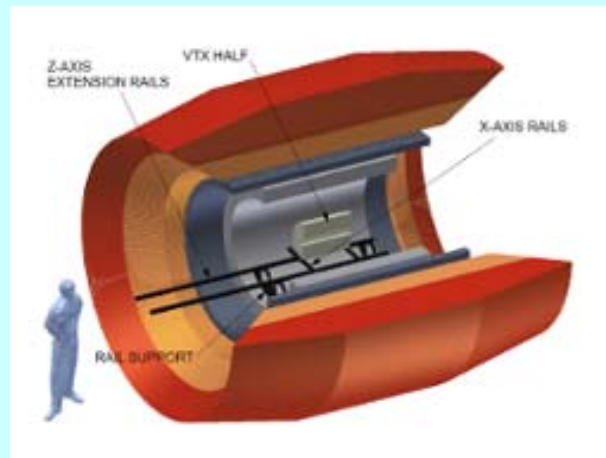
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sPHENIX

TECHNICAL SUPPORT 2013





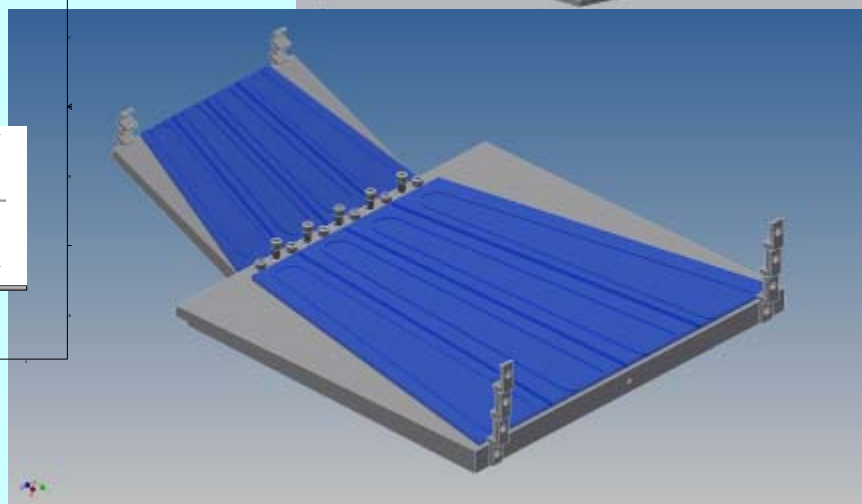
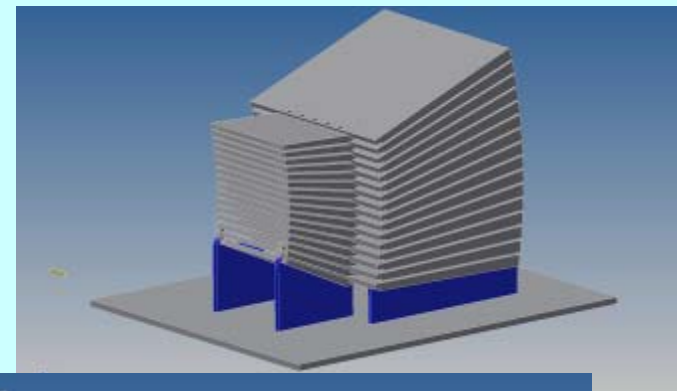
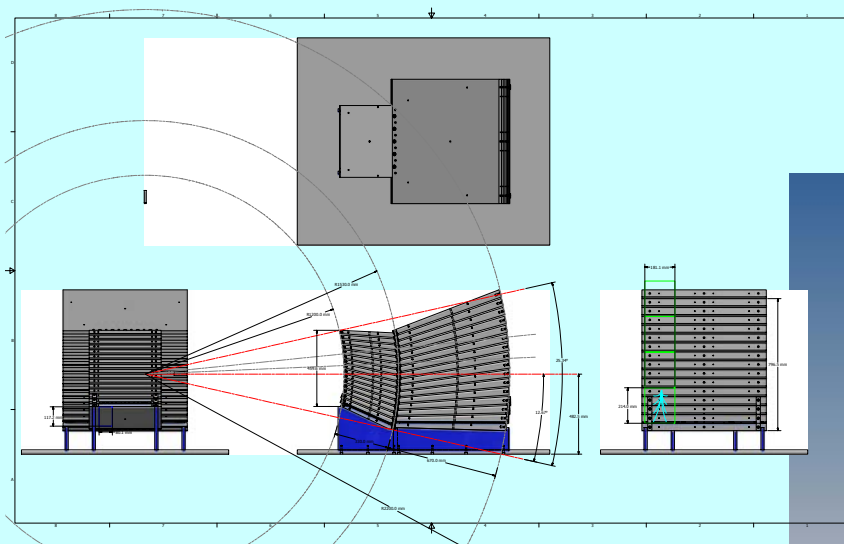
sPHENIX Proposed Upgrade

Work continues evaluating engineering tradeoffs for EMCal and HCal design, materials, etc.

Prototype HCal and EMCal in progress

Bid packages for Hcal steel and scintillators in progress to be issued by end of the month

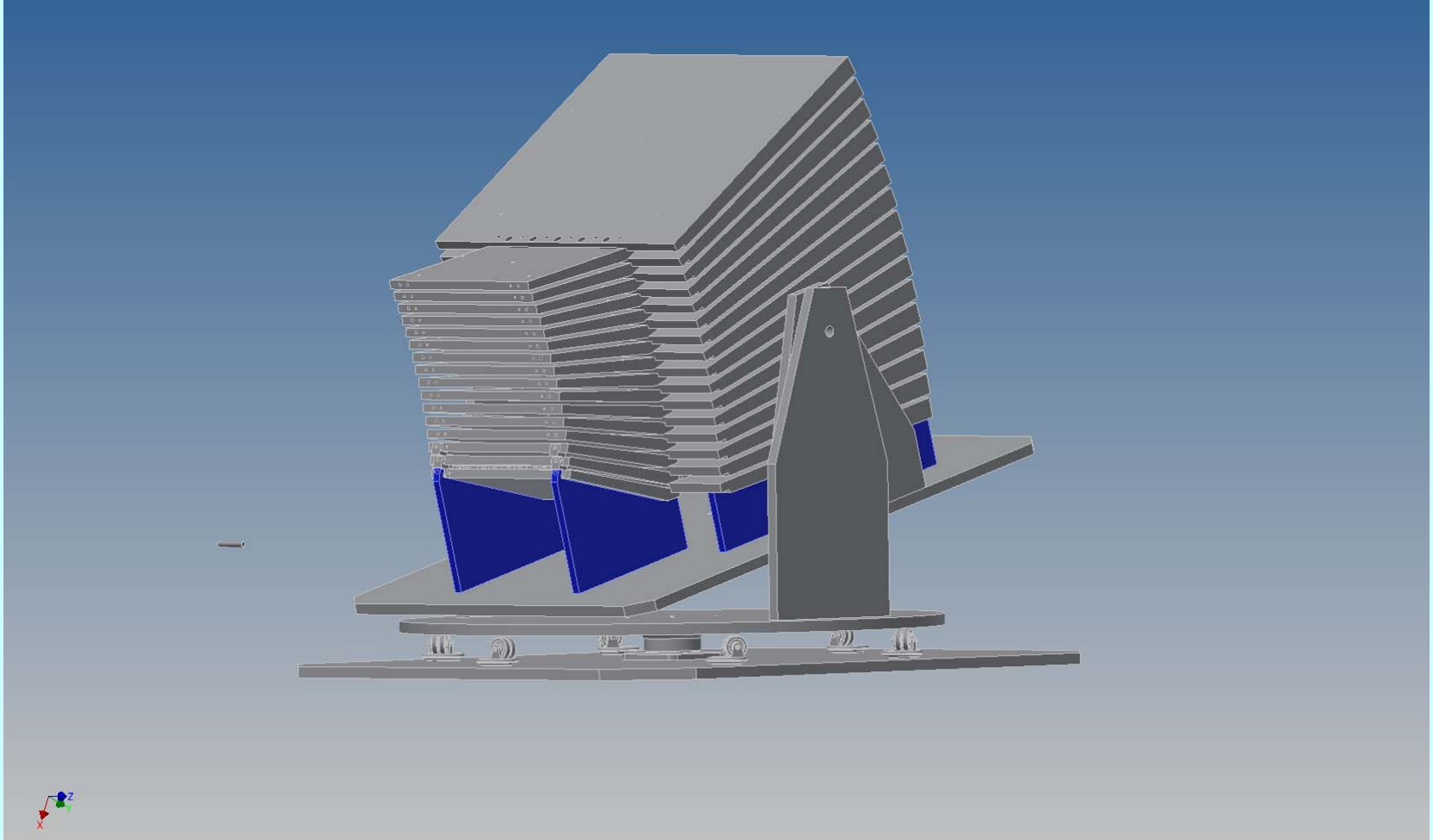
Meeting tomorrow with Magnet experts (Friday 4/26) to define SMD participation to develop SC Magnet preliminary design report by July



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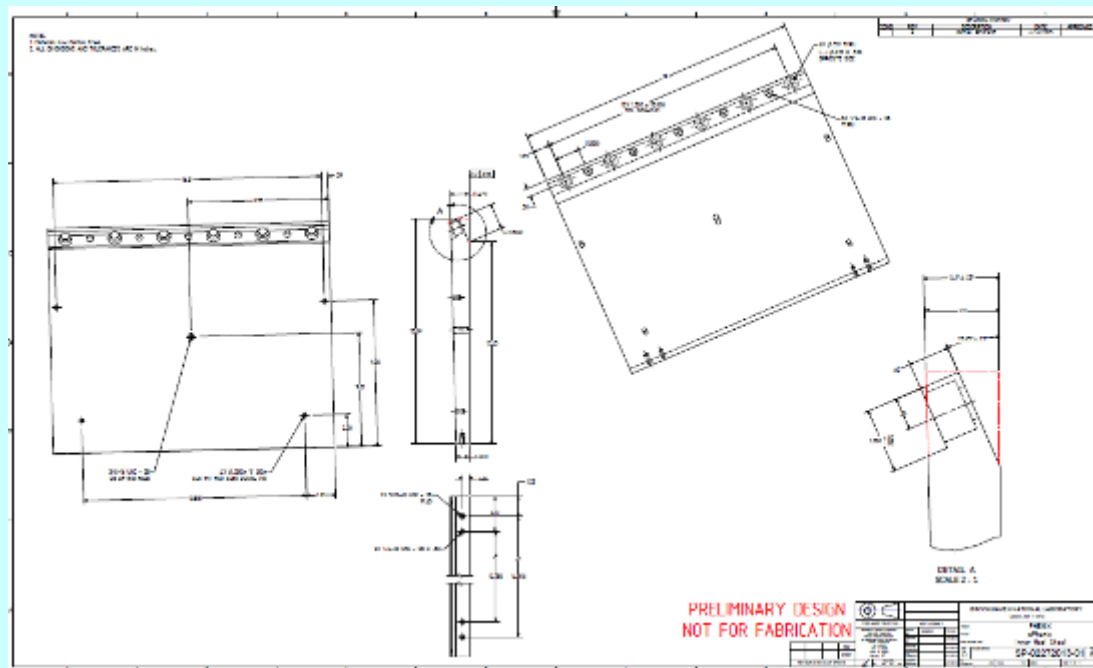
HCal Prototype Assembly Including 2 rotational DOF's

TECHNICAL SUPPORT 2013

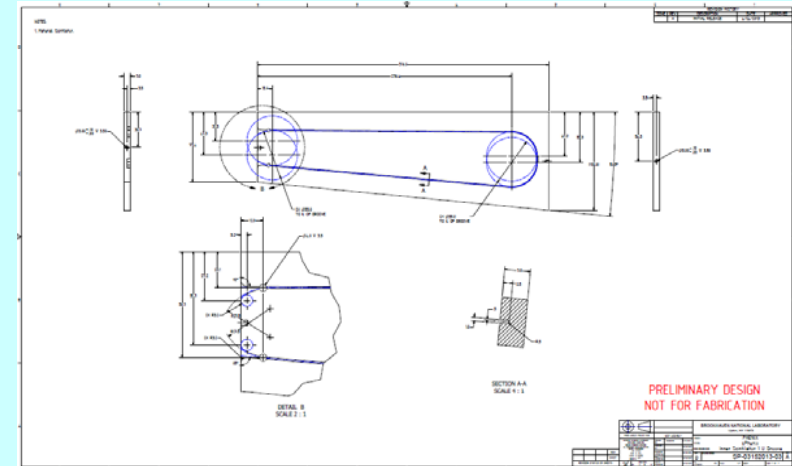
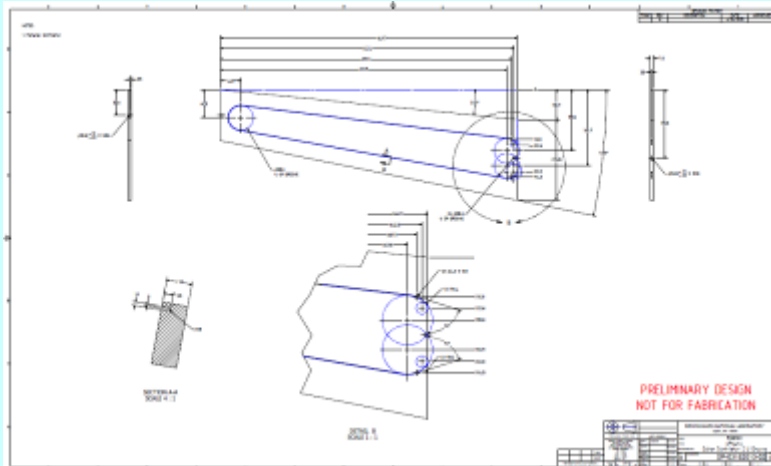
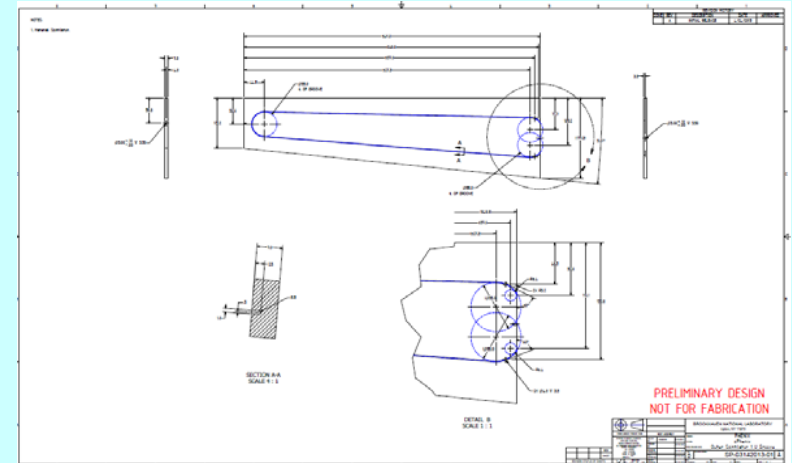
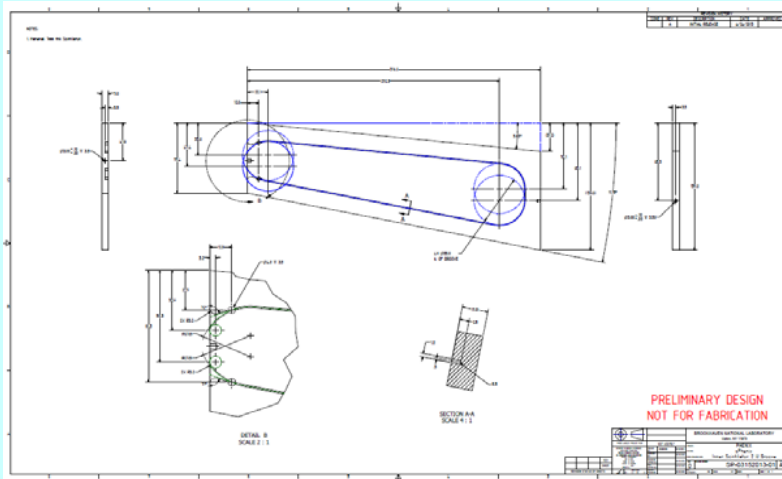


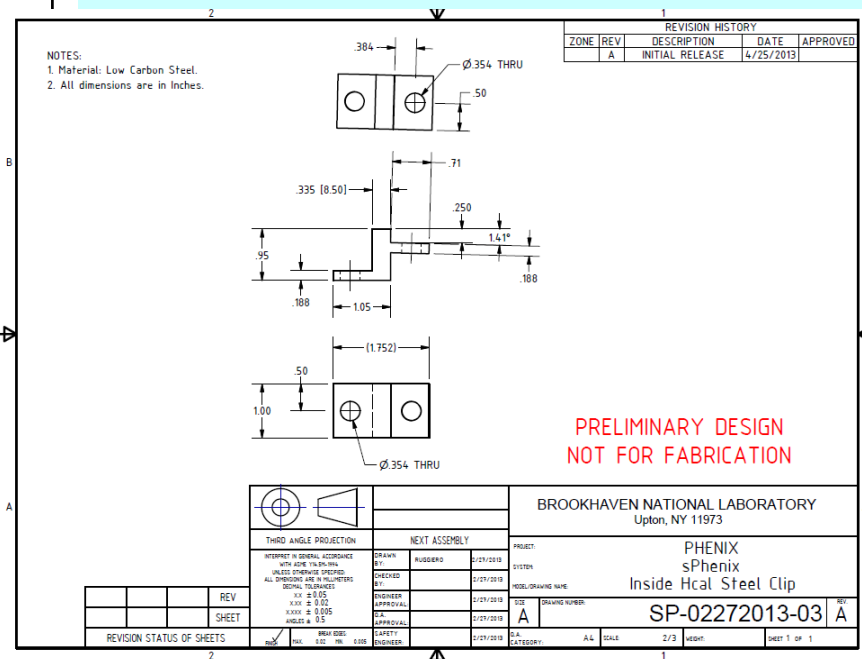
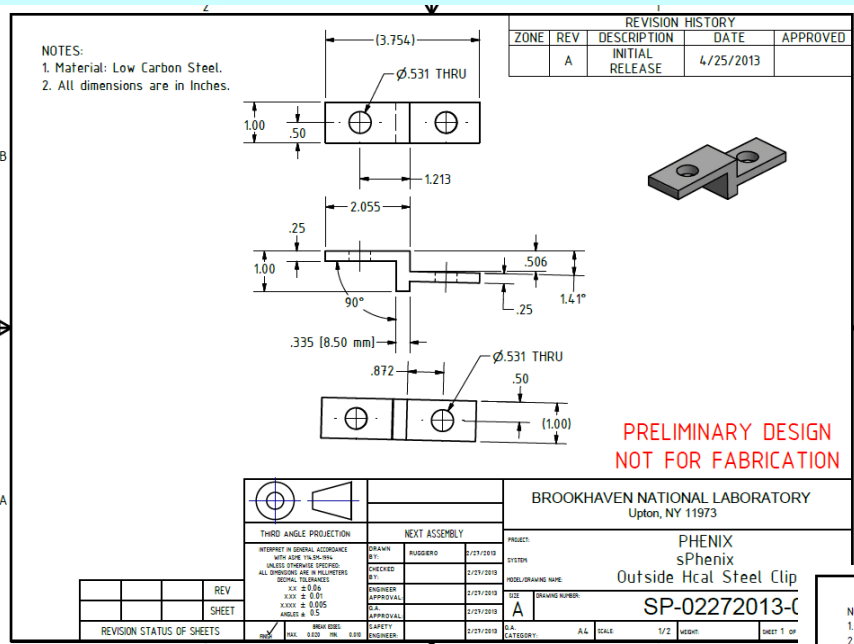


Design Review for HCal Prototype Drawings on Monday 4/29



4/25/2013





Major Projects This Summer:

- VTX repairs/upgrades/general maintenance (Mike L.)
- DC East Window Replacement (Kenny J.)
- MPC-Ex Initial (partial) Installation (Jim L.)
- mRPC Tests in mRPC Test Lab (formerly RPC Factory) (Frank T.)
- sPHENIX Prototypes assembly & tests (All)
- MuTr troubleshooting and Repairs (Chris P.)
- Window Washer Winch upgrade (Jim L.)

Other Mechanical (TBD)

Other Electrical Projects

- HVAC Controls Upgrade (Frank T.)
- Complete Window Washer Controls Upgrade (Frank T.)

Other Electronics Projects

- Additional upgrading of ADAM system to MODBUS (Sal P.)
- Electronics research in support of sPHENIX and RATCAP (Sal P.)
- Lecroy HV communications upgrade (Sal P.)

Other Gas System Projects (TBD)

- RPC Gas Recirc. Upgrade (John T.)
- Drawing and Config. Control Improvements (SULI Student)

Other Infrastructure Projects (TBD)

TECHNICAL SUPPORT 2013

Prep for 2013 shutdown	2/11-6/30/2013
Design, Fabricate MPC-Ex	
Define tasks and goals	
Analysis and design of fixtures, tools and procedures	
Fabricate/procure tools and fixtures	
Tests, mockups, prototypes	
Receive, fabricate, modify, finish installables	
Review and approval of parts, tools, fixtures and procedures	
Assembly and QA tests	
VTX Strippixel redesign	In-progress
VTX Strippixel 1 st article stave assembly	5/3/2013
VTX Strippixel 1 st article qualification/performance tests	5/17/2013
VTX strippixel stave production	5/20-8/30/2013
VTX Strippixel sensor reclamation	4/1-8/30/2013
VTX Strippixel ladder assembly	6/1-9/27/2013
Pixel Ladder repairs	in progress
End of Run Party	6/28/2013
Run 12 Ends	6/30/2013
Shutdown Standard Tasks	6/30-7/19/2013
• Open wall, disassemble wall, Remove MuID Collars,	
• Move EC to AH, etc.	
Disassemble VTX/FVTX services	7/1-7/19/2013
July 4 th Holiday	7/4-5/2013
Remove VTX/FVTX and transport to Chemistry Lab	7/22/2013
Assemble, Test and Install MPC-Ex (North only?)	7/22-10/1/2013

TECHNICAL SUPPORT 2013

MuTR Troubleshooting, maintenance and repairs	7/22-9/27/2013
Summer Sunday (8/11) Prep and teardown	8/7-8/13/2013
Summer Sunday (RHIC)	8/11/13
DC East Window Upgrade and Related Repairs	8/19-9/27/2013
sPHENIX HCal Prototype Assembly/test	8/19-10/15/2013
Labor Day Holiday	9/2/2013
Repair upgrade, reassemble VTX/FVTX (pixels and strip-pixels)	7/23-10/13/2013
Test, survey (at Chemistry and IR) and re-install VTX/FVTX	10/16-10/27/2013
Other detector maintenance as required	As required
Infrastructure maintenance as required	As required
TBD prototype tasks	As required
Pre-run commissioning and prep for run 14	11/1-12/31/2012
Veterans Day, Lab Holiday	11/11/2013
Prep for EC roll in	11/1-11/9/2013
Roll in EC	11/10-11/12/2013
Prep IR for run	11/1-11/30/2013
Thanksgiving Holidays	11/28-29/2013
Pink/Blue/White sheets	12/14-12/31/2013
Christmas Holiday	12/24-25/2013
New Year's Day Holiday	1/1/2014
Start run 14	1/2/2014

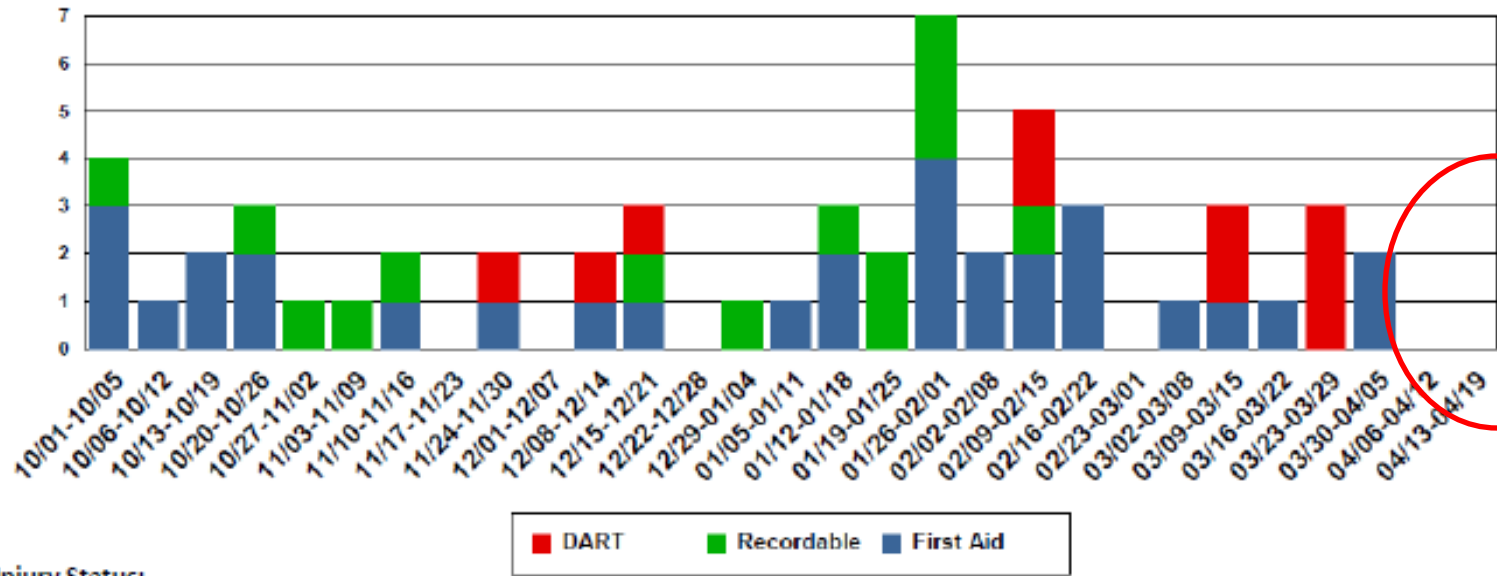
From Ray Karol:

1. New LOTO Subject Area due in early May.
2. Quiet Vehicles Lessons Learned (from LLNL)



TECHNICAL SUPPORT 2013

Injuries Per Week (FY)
As of 4/19/2013



Injury Status:

FY13 YTD: DART – 10, TRC – 24, First Aid – 31

FY12: DART – 17, TRC – 35, First Aid – 70

FY11: DART – 30, TRC – 44, First Aid – 45

FY13 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/OccInj/BNLInjuries.aspx>

Recent Injuries		
		None

YEA!

4/25/2013



Recent Events		
4/19/13	Non-Reportable	Fire and Police responding to sewage/stoppage/overflow from manhole on Bell Ave. (Event Link)
4/19/13	Non-Reportable	Less than 1 gallon of gasoline spilled on parking lot by B745 from a private vehicle. (Event Link)
4/19/13	Non-Reportable	A subcontractor to a contractor was modifying an elevator in B555. As they were rigging out the 2-piece elevator piston, the bottom section let go and fell back into the jack. < 5 gallons of oil were displaced and the oil went onto the concrete bottom of the elevator (no environmental impact). There was a rigging plan using a 1T chain hoist that was followed but the connection of the 2 shafts was different than expected, causing this event. (Event Link)
4/18/13	SC-3	After processing Sr-82 from Los Alamos targets at B801 RRPL, there was only about half of the product produced as expected. Investigation found that the HEPA filters which filter all of the exhaust air from the Hot Cell/Hot Box where the processing takes place was reading about 2 R/h close to the filters. These filters are located on the lower roof of B801. RCD is surveying the outside areas near the filter and posting the areas based upon dose rates. (Event Link)
4/18/13	SC-BNL	Cooking in kitchen caused smoke to trip fire alarm. No fire. Area ventilated to remove smoke. No injuries. Building was evacuated, thus reportable as SCBNL. (Event Link)
4/17/13	SC-4	During routine preventative maintenance on B911 Dunham Busch chiller which was shut-down for winter, it was discovered that the refrigerant pressure was lower than normal. Follow up investigations by F&O maintenance the next morning determined that ~275# (full charge) of R22 refrigerant gas had dissipated from the refrigerant system. Maintenance personnel pressurized the system with N2 and determined that there is a very small leak from the solenoid valve. Thus the R22 was not an acute release but was released over a long time interval. (Event Link)
4/15/13	Non-Reportable	A C-AD employee noticed a 5 gallon closed container in a trench outside B930. It appeared that some rainwater washed into the container and a small amount of unknown oil, ~1/2 gallon, was on the concrete. Speedy-Dry was placed on the substance outside the container, a pig placed around the trench drain, the 5 gallon bucket was placed in a plastic secondary containment, and the Research Space Manager called the Building 930 Facility Project Manager (FPM) to have it cleaned up by Grounds. When the FPM went to the location this morning, he called x2222 for response. The Fire Group determined that the substance was silicone oil. The Fire Captain stated that there was no spill to the soil or none lost to any drain. The source of the silicone oil container was contractor work from replacement of an elevator last year in B930. Cleanup and removal of the container is in progress. (Event Link)
4/15/13	Non-Reportable	Minor silicone spill to gravel found during routine inspection of transformer yard at Substation A 911-TRNF-643 at east side of B911. (Event Link)

